Fact File

RIVER WYE

GUARDIANS OF THE WATER ENVIRONMENT

NRA

National Rivers Authority
Thames Region

Fact File- RIVER WYE

FACTS IN BRIEF

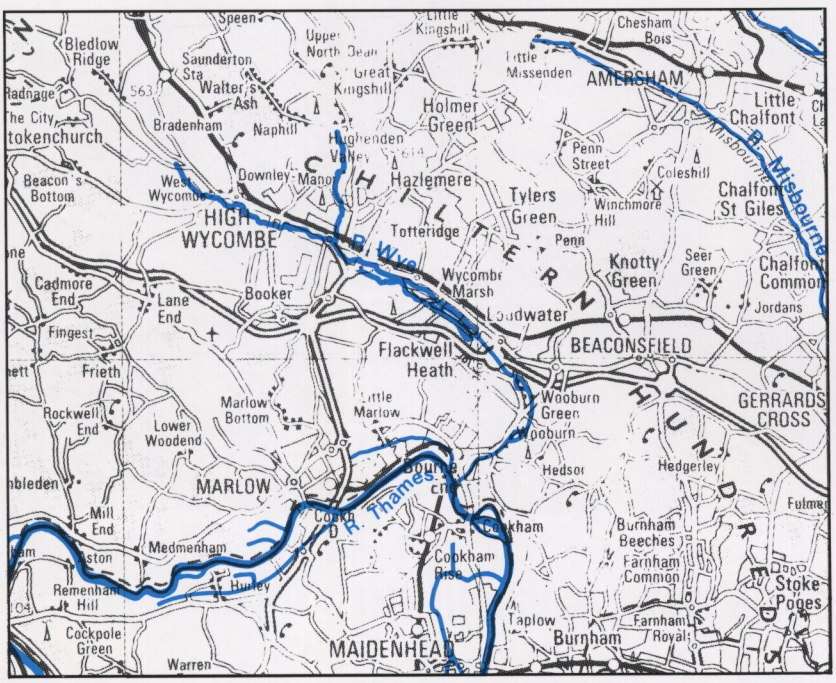
- The Wye rises to the north west of High Wycombe and flows in a south-easterly direction to its confluence with the Thames at Bourne End.
- The Wye catchment covers an area of approximately 137 square km.
- The course of the Wye is highly urbanised. Historically the river was used for power for the paper industry and was at one time badly polluted by discharges from paper mills. There are only two paper mills remaining and they no longer discharge effluent to the Wye or use it for power. Most of the heavy industry has now been replaced by small light industries.
- The average rainfall in the Wye catchment is 725mm.
- The fall in the river from its source to its confluence with the Thames is 60m.
- From its source to its confluence with the Thames the Wye is approximately 17km long.

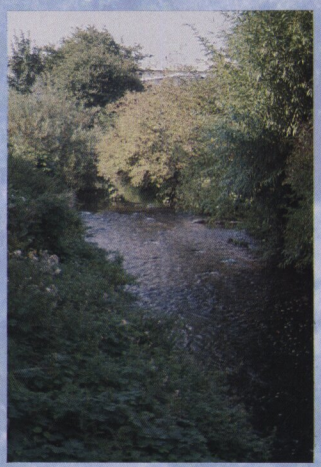
THE NATIONAL RIVERS AUTHORITY

Established on 1st September 1989, the NRA is an independent public body charged with safeguarding and improving the natural water environment. It is responsible for flood defence, regulating the quality of rivers and groundwaters, balancing the needs of various water users, protecting and improving fish stocks and promoting water-based recreation of all kinds. The NRA is committed to improving wildlife habitats and conserving the natural environment in all it undertakes.

PLANNING LIAISON

The NRA works with local planning authorities to protect the Wye catchment from undesirable development.





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WATER QUALITY

The Wye drains a highly developed urban area. There has been a fall in the amount of heavy industry in the catchment over the past 20 years and there are no longer any large discharges from industry into the Wye. The largest single discharge is the sewage treatment works in High Wycombe. Surface water run off is also significant.

There are 5 routine quality monitoring points within the Wye catchment.

WATER QUALITY OBJECTIVES

From	To	Length Km	Objective
HUGHENDEN STREAM			
Hughenden Valley	High Wycombe	2.5	E*
High Wycombe	Wye	1.0	1B - Good
WYCOMBE MARSH BROOK			
Source	Wye	4.5	Unclassified
WYE			
Source	West Wycombe Park	1.9	E*
West Wycombe Park	Thames	15.7	2B - Fair

E* - Ephemeral: stream is regularly dry. When flowing it should comply with the objective of the downstream reach.

BIOLOGY

The aquatic fauna of the Wye is regularly monitored by the biologists of the NRA. The animals collected in the upper reaches, near High Wycombe, reflect the urban nature of the river. The majority (leeches, hoglice, midges and freshwater shrimps) are tolerant of some pollution. Further downstream near the confluence with the Thames, less pollution-tolerant animals (including mayflies, caddis flies and damsel flies) are found.

DISCHARGES

The following are the major discharges into the Wye and its tributaries. The figures given are the maximum amount permitted to be discharged.

Discharge	Cubic Metres per Day	Type of Effluent
HUGHENDEN STREAM		
Compair Industries	336	Cooling water
Harrisons Ltd	100	Cooling water
WYE		
High Wycombe STW	94636	Sewage effluent
Railko Ltd	654	Cooling water

WATER RESOURCES

The River Wye derives its flow from springs and seepages rising from the chalk of the Chiltern Hills and from direct run off from the built-up area of High Wycombe. More than half of the rainfall is lost through evaporation and the growth of plants. The remainder provides the resource of water which in this catchment amounts to 105 Ml/d (million litres per day) on average. This water must be shared between the flow of the river to support the natural environment and the community's need for water supplies to homes, industry and agriculture.

In order to ensure that there is sufficient information on river flows the NRA carries out regular measurements and has a number of fixed gauging stations. The flow of the River Wye is measured at one such site, at Hedsor, just upstream of its confluence with the Thames.

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TRIBUTARIES
The Hughenden Stream rises at Hughenden Park, although it is often dry down to Hughenden Avenue and joins the Wye in the centre of High Wycombe.
The Wycombe Marsh Brook rises above Wycombe Marsh and runs parallel with the River Wye until its confluence at Loudwater.

ABSTRACTIONS
Water can only be abstracted from rivers or groundwaters under licence granted by the NRA. In the Wye catchment groundwater is the main source of supply and the total amount licensed to be abstracted is about 46 Ml/d. Most of this is pumped by the local water supply companies to meet the demand for mains water. Much of the water is returned to the river after treatment at High Wycombe sewage treatment works.

All licences specify the maximum amount of water that may be abstracted and are checked by the NRA's Licence Inspectors. There are no actual surface abstractions from the River Wye.

FLOOD DEFENCE
Reducing the risk of flooding from the River Wye and its tributaries on a day-to-day basis and planning major flood defence projects in the Wye catchment forms part of the NRA Thames Region's work.

The NRA's river control room at Reading keeps a round the clock check on weather conditions and river levels. Staff interpret the information and give the local emergency services early warning of possible floods.

A flood defence team is based at Oxford to carry out regular river maintenance work. This includes dredging, weedcutting, and removal of blockages. This team is mobilized during flood emergencies to keep rivers clear of obstructions so that flood waters can be conveyed away as quickly as possible. They also provide assistance to environmental quality staff in cleaning up after pollution incidents.

The NRA is committed to protecting and improving the natural river environment and wherever possible our flood defence work includes features of environmental conservation and enhancement.

FISHERIES
The Wye has very poor fish populations along the whole of its length. From source to High Wycombe sewage treatment works there are very few fish, due largely to the lack of perennial river flow. From the sewage treatment works down to the confluence with the Thames, the Wye has small numbers of roach, dace, pike and brown trout. A lack of suitable natural instream and bankside habitat in the watercourse means that fish have little spawning success and natural recruitment to the population is poor. The Wye does not support any significant fishery, although individual sites may hold larger fish.

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